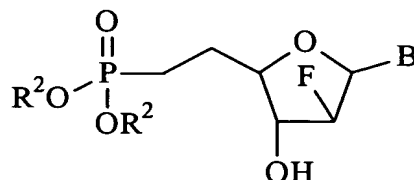


What is claimed is:

1. A compound having the formula:



wherein:

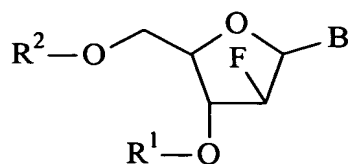
- 5 B is adenosine, N⁶-benzoyladenine, thymine, guanine, or N²-isobutyrylguanine;
and

each R² is independently hydrogen, phenyl, alkyl (1-12C) or hydrogentriethylammonium ion.

- 10 2. The compound of claim 1 wherein B is guanine.
3. The compound of claim 2 wherein R² is hydrogen.
4. The compound of claim 3 wherein B is guanine.
5. The compound of claim 3 wherein B is N²-isobutyrylguanine.
6. The compound of claim 3 wherein B is adenine.
7. The compound of claim 3 wherein B is N⁶-benzoyladenine.
- 15 8. The compound of claim 3 wherein B is thymine.

9. The compound having the general formula:

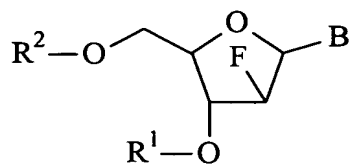
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wherein B is N²-isobutyrylguanine, R¹ and R² are both H.

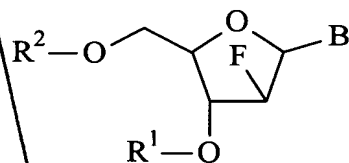
10. The compound having the general formula:

5



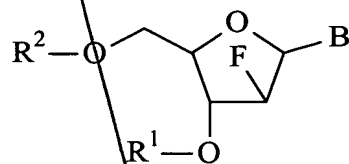
wherein B is N⁴-benzoylcytosine, R¹ and R² are both H.

11. The compound having the general formula:



10 10 wherein B is N⁶-benzoyladeneine, R¹ and R² are both H.

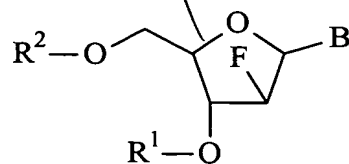
12. The compound having the general formula:



wherein B is N²-isobutyrylguanine, R¹ is H and R² is 4,4'-dimethoxytrityl.

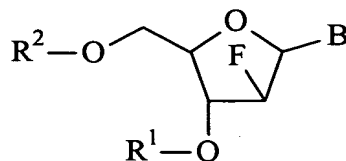
13. The compound having the general formula:

15



wherein B is N⁴-benzoylcytosine, R¹ is H and R² is 4,4'-dimethoxytrityl.

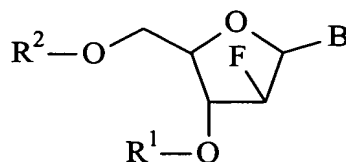
14. The compound having the general formula:



5

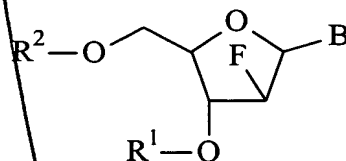
wherein B is N⁶-benzoyladenine, R¹ is H and R² is 4,4'-dimethoxytrityl.

15. The compound having the general formula:



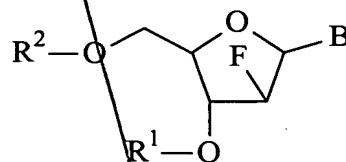
10 wherein B is thymine, R¹ is H and R² is 4,4'-dimethoxytrityl.

16. The compound having the general formula:



15 wherein B is N²-isobutyrylguanine, R¹ is t-butyldimethylsilyl and R² is H.

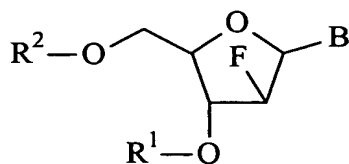
17. The compound having the general formula:



wherein B is N⁴-benzoylcytosine, R¹ is t-butyldimethylsilyl and R² is H.

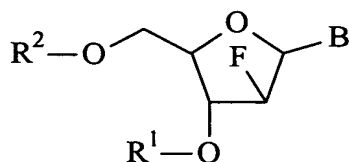
20

18. The compound having the general formula:



wherein B is N⁶-benzoyladenine, R¹ is t-butyldimethylsilyl and R² is H.

19. The compound having the general formula:



wherein B is thymine, R¹ is t-butyldimethylsilyl and R² is H.

20. A modified oligonucleotide or derivative thereof comprising at least one nucleoside selected from the group consisting of a 2'-deoxy-2'-fluoro-ribonucleoside, an arabinonucleoside, a 2'-deoxy-arabinonucleoside; and a 2'-deoxy-2'-fluoro-arabinonucleoside.

21. The modified oligonucleotide of claim 20 wherein said nucleoside is a 2'-deoxy-arabinonucleoside.

22. The modified oligonucleotide of claim 20 wherein said nucleoside is a 2'-deoxy-2'-methylester-arabinonucleoside.

23. The modified oligonucleotide of claim 20 wherein said nucleoside is a 2'-deoxy-2'-fluoro-arabinonucleoside.

24. The modified oligonucleotide of claim 20 having a length of 2 to 30 nucleotides.

25. The modified oligonucleotide of claim 24 wherein at least one internucleoside linkage is selected from the group consisting of phosphorothioate, phosphorodithioate, morphilodate, piperazidate, methylphosphonate and phosphoroamidate.

26. The modified oligonucleotide of claim 20 wherein at least one
5 internucleoside linkage is phosphorothioate.

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